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10/717,563

11/21/2003

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EXAMINER

BARQADLE, YASIN M

ART UNIT

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2153

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

| | | | |
|------------------------------|--------------------------------------|--------------------------------------|--|
| Office Action Summary | Application No. 10/717,563 | Applicant(s) HAMMER ET AL. | |
| | Examiner YASIN M. BARQADLE | Art Unit 2153 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 November 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☒ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>11/21/2003</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claims 1-14 are presented for examination.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

Claims 1-8 and 10-14 are rejected under 35 U.S.C. 102(e) as being anticipated by Trompower et al US Patent Number 6088591, hereinafter "Trompower".

As per claims 1, 7 and 10, Trompower teaches method and a user device operable to communicate with various base stations within a communication network for operating a network that includes wireless data transmission between a plurality of users, the network having at least two radio cells which at least partly overlap and in which different channels are used for data transmission, and each radio cell having at least one base station (see fig. 3, cells 162, base stations 154 and 156 connected to medium 152), the method comprising:

interconnecting the base stations of the at least two radio cells, respectively, via at least one common communication channel (see fig. 3, cells 162, base stations 154 and 156 connected to medium 152);

at predefined maximum time intervals and via the base stations, simultaneously processing test cycles of a given maximum duration, wherein test signals are transmitted from the base stations in the respective radio cells during the test cycles (col. 15, lines 60-67 to col. 16, line 5); and

determining, within each respective radio-coupled user and based on the test signals, the communication channel with optimum transmission properties for that radio-coupled user (col. 15, lines 60-67 to col. 16, line 5 and col. 34,

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lines 17-43).

As per claim 2, Trompower teaches the method as claimed in claim 1, wherein at least one user initiates the test cycles with messages recurring at the predefined maximum time intervals (col. 15, lines 60 to col. 16, line 49).

As per claim 3, Trompower teaches the method as claimed in claim 2, wherein a user having a logic mastership in a network using an access procedure based on the master-slave principle is the user which initiates the test cycles (col. 15, lines 60 to col. 16, line 44).

As per claim 4, Trompower teaches the method as claimed in claim 1, further comprising: sending, from each of the base stations, at least one test signal during a test cycle on the communication channel assigned to the respective base station; setting, within each of the radio-coupled users, all the communication channels for reception of the test signals during the test cycle; and retaining, within each respective radio-coupled user, a communication channel with the best transmission properties for the transmission of data after the test cycle (col. 15, lines 60-67 to col. 16, line 5 col. 34, lines 3-43).

As per claim 5, Trompower teaches the method as claimed in claim 1, wherein the base stations each successively transmit the test signals on the different

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communication channels during a test cycle, and no two base stations simultaneously transmit on the same communication channel (col. 15, lines 60-67 to col. 16, line 5 col. 34, lines 3-43).

As per claim 6, Trompower teaches the method as claimed in claim 5, further comprising: receiving, within the radio-coupled users, the test signals during the test cycle on a communication channel that is fixed for the duration of the test cycle (col. 15, lines 25-67 and col. 16, lines 18-49); and determining which base station corresponds to the test signal on the communication channel received with the best transmission properties (col. 15, lines 60-67 to col. 16, line 5 and col. 34, lines 17-43); retaining, within each respective radio-coupled user, the respective communication channel of the determined base station as the one with the best transmission properties for the transmission of data after the test cycle (col. 15, lines 60-67 to col. 16, line 5 and col. 34, lines 17-43).

As per claims 8 and 12, Trompower teaches a communication system comprising: a communication link operable to carry communication signals; a plurality of base stations each corresponding to a respective cell and each connected to said communication link, each base station being operable to transmit test signals in each of a plurality of different channels (see fig. 3, cells 162, base stations 154 and 156 connected to medium 152); a plurality of user

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devices each operable to receive the test signals in each channel from each base station, said user devices each comprising a channel determiner operable to determine a channel corresponding to a test signal with the strongest signal level and a switch device operable to switch an interface of the user device to the determined channel (see fig. 3, mobile terminals 166 communicating base stations 154 and 156; col. 15, lines 60-67 to col. 16, line 5 and col. 34, lines 17-43. See also col. 29, line 32-46).

As per claim 11, Trompower teaches the mobile user device as claimed in claim 10, wherein no two test messages corresponding to the same communication channel are transmitted at the same time (col. 15, lines 2-59 and col. 16, lines 18-49)

As per claim 13, Trompower teaches the mobile user device as claimed in claim 10, wherein all of the test messages are transmitted during a test cycle having a fixed predetermined duration and wherein the test cycle is initiated by an initiation message generated by a master device connected to each base station through a communication link (col. 15, lines 60-67 to col. 16, line 5 col. 34, lines 3-43. see fig. 3).

As per claim 14, Trompower teaches the mobile user device as claimed in claim 12, wherein communication between the user device and at least two base

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stations is switched from one of the base stations to another of the base stations based on the channel selection made by the user device (col. 13, lines 47-66 and col. 34 lines 17-43. see also col. 29, line 32-46).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Trompower et al US Patent Number (6088591) in view of Brueckner et al USPN (20020024929), hereinafter "Brueckner".

Regarding claim 9, although Trompower shows substantial features of the claimed invention, he does not explicitly show the communication link is a PROFIBUS communication link.

Nonetheless, this feature is well known in the art and would have been an obvious modification of the system disclosed by Trompower, as evidenced by Brueckner USPN. (20020024929).

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In analogous art, Brueckner whose invention is about Network and coupling device for connecting two segments in a network discloses a PROFIBUS communication supporting link (0019). Giving the teaching of Brueckner, a person of ordinary skill in the art would have readily recognized the desirability and the advantage of modifying Trompower by employing the system of Brueckner in order to provide a monitoring mechanism that is particularly advantageous in detecting errors in received messages.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Yasin Barqadle whose telephone number is 571-272-3947. The examiner can normally be reached on 9:00 AM to 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenn Burgess can be reached on 571-272-3949. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9306 for regular communications and 703-746-7238 for After Final communications.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either private PAIR or public PAIR system. Status information for unpublished applications is available through private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

YB

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/Yasin M Barqadle/

Examiner, Art Unit 2153